Human ADAM12 Alexa Fluor® 750-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4416S
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ADAM12 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) ADAM8, rhADAM19, and recombinant mouse ADAM33 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human ADAM12 Arg29-Ser513 Accession # AAC08702
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ADAM12, also known as meltrin-α, is a member of the ADAM family with metalloprotease activity (1). It consists of a propeptide, metalloproteinase, disintegrin, cysteine-rich, and EGF-like domains, a transmembrane segment, and a cytoplasmic tail with SH3 binding motifs. Human ADAM12 exists in two alternatively spliced forms: the prototype transmembrane form and a shorter secreted form lacking the transmembrane domain and the cytoplasmic tail. The secreted form has a 34 amino acid substitution in place of the transmembrane and cytoplasmic regions. In mouse, only the transmembrane form has been observed. The propeptide, which is cleaved in the Golgi by furin-like proprotein convertases, is retained in a noncovalent complex after ADAM12 secretion (2). Thus, the pro domain may function as an inhibitor of the proteolytic activity or play another unknown function. The known physiological substrates of ADAM12 are HBEGF in the heart (3) and IGFBP-3 and -5 in placental serum (4). Its proteolytic activity is inhibited by the tissue inhibitor of metalloproteinase-3 (recombinant human TIMP-3, Catalog # 973-TM) and α-2-macroglobulin. It also mediates cell-cell adhesion by interacting with integrins and syndecans as well as with additional unidentified molecules (4). ADAM12 may be a promising marker in prenatal diagnostics and breast cancer (5, 6). The recombinant ADAM12 contains the pro, metalloproteinase, and disintegrin domains. In addition to TIMP-3, the activity can also be inhibited by 5 mM 1,10-phenanthroline.

PRODUCT SPECIFIC NOTICES

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